

included in the software collection "Phylogeny Programs". These programs are publically available from the Department of Genetics, University of Washington, Seattle, WA, USA at their website: evolution.genetics.washington.edu/phylip/software.html. See also Thompson, D. J., et al. Nucleic Acids Res. 22, 4673-4680 (1994).

The phylogenetic tree can be prepared also by a generally available software (e.g., Tree View, Tree drawing software for Apple Macintosh: by Roderic, D., Page 1995, Institute of Biomedical and Life Sciences, University of Glasgow, UK). Specifically, results obtained by computation on CLUSTAL W can be output as PHLYP format data, and they can be processed by Tree View. PHLYP (Felsenstein, J. (1995) Phylogenetic inference package, version 3.5.7., Department of Genetics, University of Washington, Seattle, WA, USA) is also included in the aforementioned Phylogeny Programs.--

Page 26, replace the paragraph beginning at line 4 with the following paragraph:

--Then, about 3000 strains of osmophilic bacteria obtained as described above were cultured in a medium containing 20% (w/v) D-glucose, 0.1% urea, and 0.5% yeast extract at 30°C for 5 days, and the medium was analyzed by HPLC to screen for a strain having the xylitol or D-xylulose producing ability. As a result, five bacterial strains separated from soil collected from the bank of Tama river, Kawasaki-shi, Kanagawa-ken, were found to have the ability to produce xylitol from glucose. These strains were each designated as strains P528, S877, S1009, S1019 and S1023. These five strains were assigned private numbers of AJ14757, AJ14758, AJ14759, AJ14760, and AJ14761 in this order, and have been deposited since June 18, 1998 at the National Institute of Bioscience and Human-Technology, Agency of Industrial Science and Technology (zip code: 305-8566, 1-3 Higashi 1-Chome, Tsukuba-shi, Ibaraki-ken, Japan), as deposition numbers of FERM P-16848, FERM P-16849, FERM P-16850, FERM P-16851, and FERM P-16852 in this order, and transferred from the original

deposition to international deposition based on Budapest Treaty on June 14, 1999, and has been deposited as deposition numbers of FERM BP-6751, FERM BP-6752, FERM BP-6753, FERM BP-6754, and FERM BP-6755.--

Please delete the original Sequence Listing at pages 39-42 without prejudice.

Page 46 (Abstract), after the last line, beginning on a new page, please insert the attached substitute Sequence Listing.

IN THE CLAIMS

Please cancel Claims 1-15.

Please add the following new claims.

--16. (New) A method for producing xylitol or D-xylulose, which comprises:
culturing a bacterium having an ability to produce xylitol or D-xylulose from glucose
in a suitable medium to accumulate xylitol or D-xylulose in the medium, and
collecting xylitol or D-xylulose from the medium,
wherein the bacterium belongs to the family *Acetobacteraceae*, which is located
between *Acetobacter methanolicus* and *Acetobacter pasteurianus* as determined by
comparison of the 16S RNA gene nucleotide sequence of said strain with the 16S rRNA gene
nucleotide sequences of *Acetobacter methanolicus* and *Acetobacter pasteurianus* using
molecular taxonomic analysis.

17. (New) A method for producing xylitol or D-xylulose, which comprises:
culturing a bacterium having an ability to produce xylitol or D-xylulose from glucose
in a suitable medium to accumulate xylitol or D-xylulose in the medium, and
collecting xylitol or D-xylulose from the medium,
wherein the bacterium has the following characteristics: